

Abstract

A method and circuitry for ensuring proper connections of a multi-wired cable bridging two electrical components in a programmable logic controller (PLC) system. The method involves: generating a pre-specified voltage level when the cable is properly connected, testing for the existence of this pre-specified voltage level, and generating an error signal if the pre-specified voltage level is not detected. The error signal generated by a component causes the component to electronically switch off its data connection via the multi-wired cable with the other component, and may cause the component to reset itself.